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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,135

10/06/2005

Toshiyuki Majima

2005-0634A

6517

513 7590 04/10/2008

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EXAMINER

PRONE, JASON D

ART UNIT

PAPER NUMBER

3724

MAIL DATE

DELIVERY MODE

04/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,135	Applicant(s) MAJIMA ET AL.	
	Examiner Jason Prone	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15 and 20-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In this case, the abstract appears to exceed the 150 word limit.

Claim Objections

2. Claims 15 and 21 are objected to because of the following informalities: On line 28, the phrase "each of said at least one of said cams" should be replaced with said at least one of said cams". The word each makes the phrase indefinite because if only one cam is exclusive than the word each is not appropriate. On line 33 of claim 15, the phrase "one of said first group" should be replaced with "one of said punches of said first group". The last paragraph of claim 21 needs to be re-written because it does not appear to be grammatically correct (i.e. "in reciprocating in").

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15 and 20-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On lines 3 and 8 of claim 15, the phrases "punches being movable in a moving direction" and "vertical movement of said punches" are unclear. It is unclear if the moving direction and the vertical movement represent the same or different movements. The specification only provides support for a single vertical movement of the punches.

On lines 4 and 22 of claim 15, the phrase "a reciprocating member" and "a cam plate" are unclear. It is unclear if the reciprocating member and the cam plate represent the same or different structures. Both items are labeled as 75 in the specification.

Claim 15 recites the limitations "said non-punching position" on lines 23-24, "said punching position" on line 24, and "said punching state of said first movable range" on line 29. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15 and 20-24 are rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Fukumoto et al. (2001/0011492).

In regards to claims 15, 21, 23, and 24, Fukumoto et al. disclose the invention including a plurality of punches (52, 53) and dies (54, 61), the punches being movable in a moving direction (Figs. 5 and 6), a reciprocating member capable of reciprocating in a direction orthogonal to a moving direction of the punches (35), a plurality of cams (44, 84, 94) and followers (62, 69) interposed between the reciprocating member and the punches so that the reciprocating movement converts to a vertical movement (Fig. 4), the punches are grouped into a first group of punches that is composed of a predetermined number of punches (52) and a second group of punches that has a smaller number of punches than the first group (53), the plurality of cams and cam followers include cams and cam followers corresponding to the first group of punches (44, 62) in response to the reciprocation of the reciprocating member within a first movable range (Fig. 5a to Fig. 5b), the plurality of cams and cam followers include cams and cam followers corresponding to the second group of punches (84, 94, 69) in response to the reciprocation of the reciprocating member within a second movable range (Fig. 5b to Fig. 6a), the plurality of cams are each formed in a cam plate (35), the cams have at least one V-shaped portion for moving one of the punches from the non-punching position to the punching position (44) and having straight sections connecting with the at least one V-shaped portion that hold the one of the punches (86b, 96b), at least one of the cams is exclusively used with the first group (44), the at least one cam engages the cam follower with the V-shaped portion when producing a punching state of the first movable range (Fig. 5) and engages the cam follower continuously with the straight portion across its entire range when not producing the punching state of the first

movable range (Fig. 5), the reciprocating member vertically moves the first/second group in reciprocating in the first/second movable range (35), a movement restricting means for restricting the reciprocating member from moving in the first or second movable range when being used in the second or first movable range respectively (55, 56), and the move restricting means is a stopper for blocking movement (55, 56).

However, with regards to claims 15 and 20-22, Fukumoto et al. fail to disclose the second group of punches includes one of the punches of the first group, the cam that corresponds to the said one of said punches of the first group that is included in the second group has a first V-shaped portion that engages with the cam follower in the first movable range and a second V-shaped portion that engages the cam follower in the second movable range, the first movable range is a range in which the reciprocating member has moved when it has advanced by one step in one direction of reciprocation from a home position with respect to a main frame that supports the reciprocating member and the second movable range is a range in which the reciprocating member has moved when it advanced by another step in the one direction from the first movable range, the first and second neutral positions are proved on opposite sides from the home position in the first and second movable ranges respectively, the home position being interposed between the first and second neutral positions, and the first group has three or more punches and the second group has at least two punches of the first group punches.

The examiner notes that it would have been obvious to use one punch in both a first and second group. Using Figure 1 of Fukumoto et al., one of ordinary skill would

have experiment/ tried with the addition of another V-shaped portion on the straight portion 46b to allow the far left punch 52 to be used with the second group. It would have been obvious to use punches in both groups to reduce the total number of punches need to be manufactured for the apparatus. Fukumoto et al. disclose the basic structure as claimed (i.e cams, cam followers, reciprocating member, and punches). It would have been obvious to one of ordinary skill in the art to experiment/try with different cam/punch arrangements. Meaning it would have been obvious to for one to change the number of punches per group, to change the pattern of the cams to allow for more neutral positions or to allow for more inter-group punches, and to add more cams to allow for punches to used in more than one group. It would have been obvious to one having ordinary skill in the art at the time the invention was made to change cam/punch positions, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Therefore, it would have been an obvious matter of design choice to modify the device of Fukumoto et al. to obtain the invention as specified in claims 15, and 20-22. The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within technical grasp. If this leads to the anticipated success, it is likely the product is not of innovation but of ordinary skill and common sense.

Response to Arguments

7. Applicant's arguments with respect to claims 15 and 20-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is (571)272-4513. The examiner can normally be reached on 7:30-5:00 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

09 April 2008

/Jason Prone/

Primary Examiner, Art Unit 3724